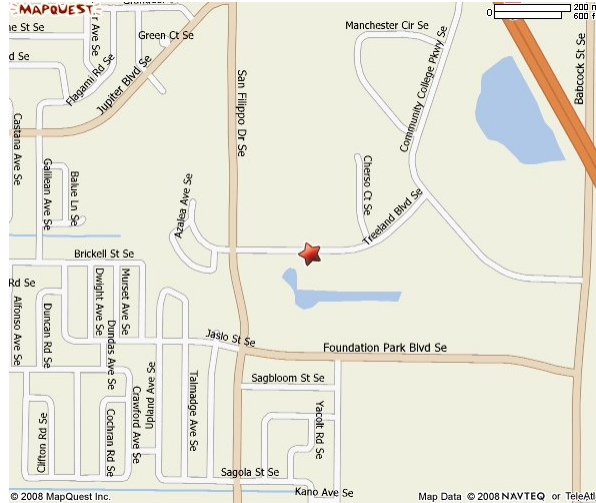
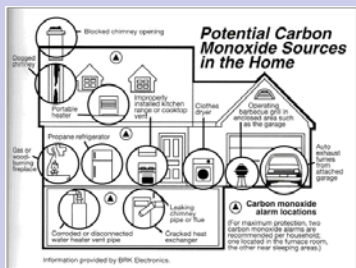


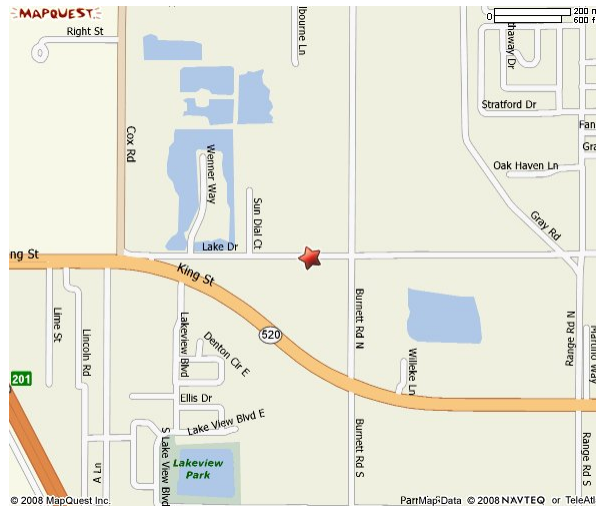
## Information about your local Brevard County Extension Service:

University of Florida—IFAS Brevard County Extension has two convenient locations that offer classes. Our classes range from gardening, pesticide licensing, aquatics (fishing, boating), nutrition, finance, housing and injury prevention.

For more information about our classes or to see our schedule please check our website at <http://brevard.ifas.ufl.edu> or call the office closest to you. Preregistration is required for most classes and can be done over the phone or online.



Brevard County Extension Office—Palm Bay  
1455 Treeland Blvd. SE  
Palm Bay, FL 32909-2258  
321-952-4536



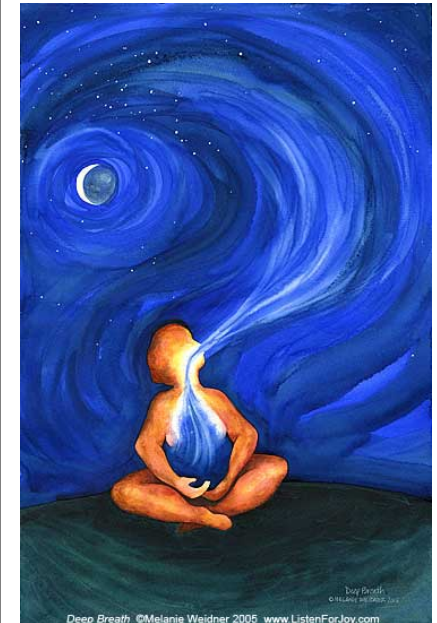
Brevard County Extension Office—Cocoa  
3695 Lake Dr.  
Cocoa, FL 32922  
321-633-1702

In accordance with the Americans with Disabilities Act and Section 286.26, F.S., persons needing accommodations or an interpreter to participate in the proceeding should notify the University of Florida Brevard County Extension Service no later than 48 hours prior to the meeting at 321-633-1702 or fax 321-633-1890.



**UF** UNIVERSITY OF FLORIDA  
Brevard County IFAS Extension Service

## Breathe Easy: A Guide to Creating a Clean Indoor Environment



Gayle Whitworth, Family and Consumer Sciences, University of Florida—Brevard County Extension Office

Equal Opportunity / Affirmative Action Institute

## Creating Clean Air Inside the Home

On average, Americans spend over 90% of their time indoors and 1/2 of their life in the home. Though we may think of our homes as a safe haven, the air inside them can be more harmful to our health than the air outside. Health and safety problems, including allergies and asthma, can be triggered by the pollutants inside our homes. Children are especially at risk, as they breathe up to twice the amount of air for their size, as an adult. By gaining a better understanding of the pollutants that can cause you harm, you can take simple steps to reduce the amount of pollutants in your home.



Some of the common indoor air pollutants include biologicals (including mold) carbon monoxide, radon, formaldehyde and volatile organic compounds.

### Biologicals

Biologicals are the most common factor in allergies and breathing troubles, and include pollen, dust, bacteria, viruses, dust mites, and mold. Allergic reactions (sneezing, runny nose, itchy eyes, wheezing, headache, eye and throat irritation and more), asthma attacks, and infectious diseases are the most common health effects associated with biologicals. Controlling the factors that cause these effects can be as simple changing your air conditioning filter every thirty days, using air conditioning to help reduce pollen infiltration into

sources of contamination, replacing soft textiles with hard surfaces, using vacuums with high efficiency filters (or using central vacuuming systems) and ventilating to control humidity levels.

### Mold

Mold, a member of the fungi kingdom, is found everywhere and can act as an allergen, toxicant (toxic agent), irritant or infectious agent. Mold grows on organic materials such as paper, textiles, grease, dirt and soap scum. It requires moisture or high humidity to grow. Once mold spores generate, they can become airborne and spread throughout a house forming new colonies. Basic mold control includes keeping things clean and dry.



### Carbon Monoxide

Carbon monoxide (CO) is a colorless, odorless gas that is produced from the burning of any carbon-based fuel. CO can collect in spaces without a person being aware of it. When CO collects in enclosed spaces, it can cause illness or death. Health effects include flu-like symptoms (such as nausea, dizziness, vomiting, and general weakness), impaired judgment, weakness and paralysis, coma and even death. CO can enter the home from heating equipment, an idling engine in the garage, unvented barbecues, and gas stoves and ranges. Use care when operating appliances that use gas as their power source, use adequate ventilation, and avoid using outdoor appliances (including generators) inside the home. Also, make sure you install a carbon monoxide alarm on every level of your home.

### Radon

Radon is a radioactive gas that comes from the natural decay of uranium that is found in nearly all soils. It typically moves up through the ground to the air above and into your home through cracks and other holes in the foundation. Your home traps radon inside, where it can

build up. Any home may have a radon problem, new or old, well-sealed or drafty, with or without a basement (<http://epa.gov/radon/pubs>). Radon is the number one cause of lung cancer among non-smokers and the second leading cause of lung cancer in the U.S. Homeowners can get simple and easy to use kits to test for radon levels in the home from most hardware stores.

### Formaldehyde

Formaldehyde is a chemical that is released into the air as a pungent odor which can cause irritation of the eyes, nose, throat and skin as well as nausea, breathing difficulty, headache and fatigue. Formaldehyde is commonly used as an adhesive and preservative in items such as particle board and MDF (medium density fiberboard), paneling, permanent press fabrics, cosmetics and combustion products. Formaldehyde is most often detected through smell. The best control for formaldehyde is to avoid bringing products containing it into the indoor environment. Other means of control include ventilation, reducing indoor temperature and humidity (which increases the out gassing of the formaldehyde), and coating the surfaces of items that have formaldehyde.

### Volatile Organic Compounds

Volatile Organic Compounds, or VOCs, are organic solvents that easily evaporate into the air. Many household products, including paints, varnishes, and wood strippers contain organic solvents, as do many cleaning, disinfecting, cosmetic, degreasing, and hobby products. Eye and respiratory tract irritation, headaches, dizziness, visual disorders, and memory impairment are among the immediate symptoms that some people have experienced soon after exposure to some organics. Long-term health effects may include permanent damage to certain parts of the body, such as the lungs, kidneys, liver and nervous system. VOC precautions include choosing products with reduced levels or low-emitting VOCs, reading labels and following all safety precautions with products containing VOCs, and providing adequate ventilation when using VOCs (and using outdoors when possible).

